

PREFACE

This volume collects the papers presented at the *11th Workshop on Noncommutative Harmonic Analysis with Applications to Probability*, held in Będlewo, Poland, 17–23 August 2008. All the papers were refereed. Over 70 mathematicians and physical mathematicians participated in the Workshop, presenting lectures on the following main topics:

1. Free probability, random matrices and relations to other deformed models of probability;
2. Quantum groups and connections with models of quantum probability;
3. Quantum white noise and infinite dimensional analysis;
4. Noncommutative harmonic analysis with applications to noncommutative probability;
5. Quantum information and quantum entropy;
6. Quantum dynamical semigroups and Lévy processes;
7. Positive definite functions on groups;
8. Classical and noncommutative Markov processes;
9. Asymptotic spectral analysis of graphs;
10. Orthogonal polynomials;
11. Asymptotic representation theory.

The Stefan Banach International Mathematical Center was the main organizer of the Workshop. The Workshop was also sponsored by the Mathematical Institute of Wrocław University, by the Institute of Mathematics and Computer Science of the Wrocław University of Technology and by the Institute of Theoretical Physics and Astrophysics of the University of Gdańsk. Part of the conference expenses were covered by a grant from Ministry of Science and Higher Education. We also acknowledge the financial support of the European Commission Marie Curie Host Fellowship for the Transfer of Knowledge “Harmonic Analysis, Nonlinear Analysis and Probability”, MTKD-CT-2004-013389. We would like to thank the Scientific Committee for the preparation of the scientific content of the Workshop.

Special thanks go to all the speakers of the Workshop. In particular, we appreciate very much the special invited introductory lectures given by Narutaka Ozawa “Why Herz-Schur multipliers are important?”, by Ryszard Szwarc “Orthogonal polynomials” and by Akihito Hora “Harmonic analysis on symmetric groups and branching graphs.”

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